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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/849,505	05/20/2004	Kouji Yamazaki	040218	5968

23850 7590 12/13/2004

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EXAMINER

THOMAS, ERIC W

ART UNIT PAPER NUMBER

2831

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,505

Applicant(s)

YAMAZAKI ET AL.

Examiner

Eric W Thomas

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 17, 33-41 and 81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 17, 33-41 and 81 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

INTRODUCTION

The examiner acknowledges, as recommended in the MPEP, the applicant's submission of the amendment dated 5/20/04. At this point, claims 10-16, 18-32, 42-80 have been cancelled. Thus claims 1-9, 17, 33-41, and 81 are pending in the instant application.

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claims 2-9, 34 are objected to because of the following informalities:

Claims 2-9, 34, line 2 insert —the— before "separator".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Adiletta (US 5,954,962).

Adiletta discloses a fibrous nonwoven web comprising a glass fiber (col. 4 lines 25-30); a polyester fiber (col. 4 lines 25-30); and an aramid fiber (col. 4 lines 25-30). Regarding "a separator for an electric double-layer capacitor," it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 2, Adiletta discloses the web contains glass fiber of not less than 10 mass percent and not more than 40 mass percent (col. 4 lines 63-37, col. 5 lines 1-4).

Regarding claim 3, Adiletta discloses the web contains the aramid fiber of not less than 40 mass percent and not more than 60 mass percent (col. 4 lines 55-67, col. 5 lines 1-4).

Regarding claim 4, Adiletta discloses the web contains the aramid fiber of not less than 40 mass percent and not more than 60 mass percent (col. 4 lines 55-67, col. 5 lines 1-4).

Regarding claim 5, Adiletta discloses the web contains said polyester fiber of not less than 10 mass percent and not more than 30 mass percent (col. 4 lines 55-67).

Regarding claim 6, Adiletta discloses the web contains said polyester fiber of not less than 10 mass percent and not more than 30 mass percent (col. 4 lines 55-67).

Regarding claim 7, Adiletta discloses the web contains said polyester fiber of not less than 10 mass percent and not more than 30 mass percent (col. 4 lines 55-67).

Regarding claim 8, Adiletta discloses the web contains said polyester fiber of not less than 10 mass percent and not more than 30 mass percent (col. 4 lines 55-67).

Regarding claim 41, Adiletta discloses the claimed structural limitations.

Regarding, "an electric double layer capacitor comprising the separator of claim 1", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

5. Claims 33-37, 81 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 7-29560 ('560).

'560 discloses a separator comprising: a fiber; and an inorganic compound for forming hydrosol that is made to adhere to a surface of said fiber.

Regarding "a separator for an electric double layer capacitor", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Regarding claim 34, '560 discloses the separator contains the inorganic compound of not less than 1 mass percent and not more than 20 mass percent (paragraph 19).

Regarding claim 35, '560 discloses said inorganic compound comprises a particulate inorganic compound and a particle diameter of said particulate inorganic compound is not less than 1 nm and not more than 500 nm (paragraph 17).

Regarding claim 36, '560 discloses said inorganic compound comprises a particulate inorganic compound and a particle diameter of said particulate inorganic compound is not less than 1 nm and not more than 500 nm (paragraph 17).

Regarding claim 37, '560 discloses said fiber comprises at least a glass fiber (paragraph 14), and wherein total of said inorganic compound and said glass fiber is not less than 10 mass percent and not more than 50 mass percent (paragraph 19).

Regarding claim 38, '560 discloses said fiber comprises at least a glass fiber (paragraph 14), and wherein total of said inorganic compound and said glass fiber is not less than 10 mass percent and not more than 50 mass percent (paragraph 19).

Regarding claim 39, '560 discloses said fiber comprises at least a glass fiber (paragraph 14), and wherein total of said inorganic compound and said glass fiber is not less than 10 mass percent and not more than 50 mass percent (paragraph 19).

Regarding claim 40, '560 discloses the claimed structural limitations. Regarding, "an electric double layer capacitor comprising the separator of claim 1", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 81, '560 discloses a manufacturing method of a separator for an electric double-layer capacitor, the method comprising a mixing process for mixing a fiber and an inorganic compound that forms hydrosol and is dispersed; and a paper making process for making paper from the mixed fiber and inorganic compound (paragraph 21).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Adiletta (US 5,954,962).

Adiletta discloses the thickness of the web is not less than 20 micrometers and not more than 60 micrometers (col. 2 lines 7-25).

Adiletta discloses the claimed invention except for the surface density is not less than 10 g/m² and not more than 30 g/m².

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the surface density of web not less than 10 g/m² and not more than 30 g/m², since it has been held that discovering an optimum value of a result

effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Allowable Subject Matter

9. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach or fairly suggest (taken in combination with the other claimed features) the separator comprises an acryl resin and a cation fixing reinforcement agent (claim 9).


Conclusion

In order to ensure full consideration of any amendments, affidavits, or declaration, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116 which will be strictly enforced.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric W Thomas whose telephone number is 571-272-1985. The examiner can normally be reached on M,Tu,Sat 9 am - 9:30 pm; W, Th, F 6 pm -10:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-1984. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


EWT

Eric W Thomas
Examiner
Art Unit 2831